

Title (en)

SHAPED COILS FOR TRANSCRANIAL MAGNETIC STIMULATION

Title (de)

GEFORMTE SPULEN ZUR TRANSKRANIALEN MAGNETISCHEN STIMULIERUNG

Title (fr)

BOBINES FAÇONNÉES POUR STIMULATION MAGNÉTIQUE CÉRÉBRALE

Publication

EP 2384223 A4 20140618 (EN)

Application

EP 10729491 A 20100107

Priority

- US 2010020324 W 20100107
- US 14310309 P 20090107

Abstract (en)

[origin: WO2010080879A2] Described herein are shaped coil TMS electromagnets formed by two bent magnetic coil loops joined at a vertex having an angle between the outer coil regions of the coils that is typically less than 120 degrees (e.g., between about 45 and about 70 degrees, 60 degrees, etc.). The vertex region shaped to optimize the magnetic field projected from the TMS electromagnet. For example, the vertex region may be horizontal or vertical. In some variations the vertex region is formed by re-arranging the conductive windings forming the two coils so that they are no longer arranged in the same columnar structure that they are in the other portions of the bent magnetic coil loops. These TMS electromagnets may be well suited for use in deep-brain Transcranial Magnetic Stimulation.

IPC 8 full level

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CPC (source: EP US)

A61N 2/006 (2013.01 - EP US); **A61N 2/02** (2013.01 - EP US)

Citation (search report)

- [X1] WO 2006134598 A2 20061221 - BRAINSWAY INC [US], et al
- [A] US 2007260107 A1 20071108 - MISHELEVICH DAVID J [US], et al
- See references of WO 2010080879A2

Citation (examination)

- EP 2008687 A1 20081231 - UNIV OSAKA [JP]
- JP 2892181 B2 19990517
- JP 2003205040 A 20030722 - DAI ICHI HIGH FREQUENCY CO LTD
- US 4501265 A 19850226 - PESCATORE EUGENE A [US]
- -H VERNON WEH-HAU LIN* ET AL: "Magnetic Coil Design Considerations for Functional Magnetic Stimulation", IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, IEEE SERVICE CENTER, PISCATAWAY, NJ, USA, vol. 47, no. 5, 1 May 2000 (2000-05-01), XP011006885, ISSN: 0018-9294

Cited by

US10065047B2; US10105549B2

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DOCDB simple family (publication)

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DOCDB simple family (application)

US 2010020324 W 20100107; EP 10729491 A 20100107; US 201013141100 A 20100107; US 201414247087 A 20140407; US 201514853829 A 20150914; US 201615202317 A 20160705